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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY
UNITED STATES DEPARTMENT OF AGRICULTURE

Number 174

October, 1928

DEATH OF DOCTOR SCHWARZ

To the great loss of the science of Entomology, Dr. E. A. Schwarz died on October 15th. The Entomological Society of Washington has spread the following statement upon its minutes:

"The Entomological Society of Washington appreciates to the fullest degree that in the passing of Dr. Eugen Amandus Schwarz it has lost its most learned member, its most loyal and generous supporter and the kindest and most helpful of friends. The Society points with pride to the facts that Doctor Schwarz was one of its founders, that he held in the course of the years every office in which he could serve, and that the title Honorary President was created especially for him.

"The Society feels that American entomologists should be grateful that this great soul has lived among them for more than fifty years, constantly in his quiet way influencing their trend of thought towards the very best methods and towards sound scholarship."

L. O. H.

INSECTS AFFECTING MAN AND ANIMALS

F. C. Bishopp, in Charge

On October 3 this office received a visit from three Russian entomologists, A. P. Adrianov, Senior Specialist, Bureau of Plant Protection, V. V. Nikolsky, Entomologist, Interdepartmental Quarantine Commission, and J. A. Parfentier, Entomologist, Insecticide and Fungicide Laboratory, all of the U. S. S. R. They were interested in basic information about the pink bollworm, to be used for its bearing on the quarantine against the pink bollworm in their own country.

On October 22 D. C. Parman left Uvalde, Tex., for Thermal, Calif., where he spent the remainder of the month in a study of control measures for the gnat Hippelates flavipes.

E. C. Cushing spent the month of October in making a mosquito survey of northern Florida.

BEE CULTURE INVESTIGATIONS

James I. Hambleton, in Charge

Dr. Everett Oertel has been appointed an Assistant Apiculturist to fill a vacancy in the Southern States Bee Culture Field Laboratory, recently established at Baton Rouge, La. He will devote his time largely to the study of floral sources of nectar, manipulation of bees, and other factors closely related to the production of honey.

Dr. Warren Whitcomb, Jr., of the Southern States Bee Culture Field Laboratory, Baton Rouge, La., attended the meeting of the Georgia State Beekeepers' Association at Macon, Ga., on Sept. 19, where he outlined the work of that laboratory.

R. S. Kifer, of the Bureau of Agricultural Economics, visited the Bee Culture Laboratory on Oct. 2 to confer with members of the staff previous to his departure for the Intermountain States, where he will continue the studies on the cost of producing honey and methods of apiary management upon which E. L. Sechrist, of the Bee Culture Laboratory, has been engaged during the past summer. Mr. Kifer will make the final visit to all cooperators and close the work for the season.

The American Honey Producers' League sponsored an exhibit of honey which was shown at the annual convention of the American Dietetic Association, which met October 29 to 31 at the Willard Hotel. The success of the exhibit was in large part due to Dr. E. N. Cory, Secretary of the Maryland State Beekeepers' Association, who detailed members of the association to take care of the display. The colored poster advertising honey, published by the Bureau of Entomology, was conspicuously displayed, and the staff of the Bee Culture Laboratory assisted in the arrangements.

In the July News Letter mention was made of the fact that at the time granulated honey was discovered in the apiary of the Bee Culture laboratory the bees were found to be working largely on sweet clover. Since that time it has been determined that the granulation of the honey was due to the presence of melezitose, one of the rare sugars, and it is quite evident now that the bees had finished working the true source from which the melezitose was derived, which was probably the scrub pine, a tree occurring in abundance in this part of the country. For this reason it has been impossible to determine definitely whether the melezitose was derived directly from an exudation of the scrub pines, or from honeydew collected from aphids.

Recent visitors at the Bee Culture Laboratory included Dr. W. W. Alpatov, of the University of Moscow; Mr. Victor M. Buck, of the Presbyterian School, Ebolowa, Cameroun, West Africa; and Dr. J. A. Nelson, of Mt. Vernon, Ohio, who was formerly connected with the laboratory.

Prof. H. F. Wilson, head of the Department of Entomology at the University of Wisconsin, Madison, and also custodian of the Dr. C. C. Miller Memorial Library located there, visited the Bee Culture Laboratory on October 23. After looking over the library of the Division of Bee Culture Investigations he deplored the fact that many valuable and almost unobtainable books were housed in such an inflammable building. Noticing many of the gaps in the volumes of bee journals, he generously offered to transfer some duplicate material from the Miller Library to that of the Bee Culture Laboratory, as he fully agrees that the Department of Agriculture should possess the best possible beekeeping library.

CEREAL AND FORAGE INSECT INVESTIGATIONS

W. H. Larrimer, in Charge

The alfalfa weevil field laboratory at Salt Lake City was visited early in September by Dr. Filippo Silvestri, Portici, Italy, and Professor Felipjez, Leningrad, Russia.

On September 15 Dr. J. C. Hamlin and M. M. Darley, of the alfalfa weevil field laboratory, returned to Salt Lake City after a ten-day study of conditions prevailing in alfalfa meal mills in western Nevada.

On September 21 L. Dean Christenson terminated his appointment as Junior Entomologist at the alfalfa weevil field laboratory, to take up graduate studies at the University of Minnesota.

On September 17 Geo. I. Reeves and I. M. Hawley conferred with Dr. P. V. Cardon, Dr. H. J. Frederick, and Dr. William Peterson, Director, all of the Utah Experiment Station, at Logan, on matters relating to arsenic poisoning.

W. H. Larrimer, in charge of Cereal and Forage Insect Investigations, spent October 25 to 30 at the field laboratory at Arlington, Mass., in consultation with D. J. Caffrey on matters relating to the corn borer work in Europe.

W. J. Phillips, in charge of the field laboratory at Charlottesville, Va., spent October 10 in the Washington office.

Geo. G. Schweis, Nevada State Quarantine Officer, visited Salt Lake City and Logan, Utah, October 18 to 22, and conferred with Federal entomologists regarding the alfalfa weevil, and with Dr. B. L. Richards, of the Utah Experiment Station, concerning a new and serious disease of potatoes, apparently transmitted by a psyllid heretofore of little economic importance.

On October 4, at the request of Nevada State officials, S. J. Snow investigated severe injury to corn, caused by the red spider, at Hiko, Nev. He also spent much time investigating the presence of alfalfa weevils on the premises of the meal mill at Fallon, Nev.

COTTON-INSECT INVESTIGATIONS

B. R. Coad, in Charge

The latter part of October marked the completion of a research expedition to the Laguna District of Mexico which was started about the middle of August. It was undertaken primarily for the purpose of studying the flight habits and possible migration of the pink boll worm. The expedition included two airplanes equipped for insect collection and, as personnel, B. R. Coad, F. A. Fenton, P. A. Glick, G. C. Berrier, G. C. McGinley, R. L. Mitchell, and R. G. Long. Contrary to previous belief, it was found that there is a distinct migratory period for these moths toward the end of the season. Individuals were collected at various altitudes up to 3,000 feet, and were traced northward in the direction of the cotton areas along the Rio Grande. After the studies in Mexico were completed, air-current surveys were made by plane throughout the territory between Marfa, Tex., and Tucson, Ariz. Trap-crop and similar records, made at the same time along the American side of the border, showed the arrival of a heavy migration of moths.

On the whole, the expedition was very successful, but was marred by one unfortunate accident. It proved impossible to secure suitable aviation gasoline in the portion of Mexico where the majority of the flying was done, and, rather than fail to secure the needed records, flying was continued with gasoline of very low grade, the flyers realizing fully that the venture was exceedingly hazardous. As a result, one plane was crashed in a forced landing near Tlahualilo, Durango, with serious injuries to Pilot G. C. McGinley and Entomologist P. A. Glick. Fortunately, both are now well on the road to complete recovery.

D. A. Isler, Agent, with the Plant Quarantine and Control Administration, has been assigned to this division for cooperation in investigations of the pink bollworm in western Texas, in an attempt to improve methods of plowing as a measure for winter control. This work is being conducted in cooperation with the Division of Agricultural Engineering, Bureau of Public Roads.

F. M. Koler has been employed as Mechanical Engineer and assigned to the pink bollworm project, to study improved methods of disposal of gin waste. This work is also being done in cooperation with the Division of Agricultural Engineering.

Norman S. Pearce, Assistant Secretary, International Federation of Master Cotton Spinners' and Manufacturers' Associations of Manchester, England, was a visitor at the field laboratory at Tallulah on October 27. Mr. Pearce was especially interested in the problem of the pink bollworm.

Dr. W. E. Hinds, State Entomologist of Louisiana, while on a tour of the State to investigate the present status of the boll weevil, spent October 15 at Tallulah.

On October 4 R. G. Long, Airplane Mechanic, and P. A. Glick, of the field laboratory, returned to Tallulah from Tlahualilo, Durango, Mexico.

V. V. Williams, who has been conducting experimental work on control of the boll weevil in Oklahoma during the past season, in cooperation with the State Experiment Station and the Oklahoma Extension Service, returned to Tallulah on October 27.

R. W. Moreland, who has been conducting experimental work on control of the cotton bollworm in the vicinity of Bryan, Tex., during the recent season, returned to Tallulah October 1.

The appointment as temporary field assistants of John S. Graham and C. C. McCall expired in October.

S. W. Simmons and J. W. Yates were appointed in October as temporary field assistants.

TAXONOMIC INVESTIGATIONS

Harold Morrison, in Charge

Dr. F. E. Blaisdell, of San Francisco, Calif., a well-known specialist in Coleoptera, spent October 1 to 15 in the Casey Room at the U. S. National Museum, where he studied types in the families Tenebrionidae and Melyridae.

D. T. Ries, of Cornell University, spent October 10 to 12 studying the Museum collection of sawflies of the family Siricidae, in connection with a revision of the species of the world.

Dr. F. W. Goding, of Livermore Falls, Me., a retired member of the Foreign Service of the United States, came to the Museum on October 15 and spent several days examining Uhler types of Japanese Membracidae.

Frank Haimbach, of the Philadelphia Academy of Natural Sciences, recently visited the Museum to study the collection of Pyralidae.

H. H. Ross, of Urbana, Ill., spent October 22 to 31 in the Museum, consulting with the Bureau specialists and studying the Museum material of the genus *Dolerus*, in relation to a revision of the North American species. While here he also made determinations and comparisons of sawflies in other genera from the collection of the Illinois Natural History Survey.

STORED-PRODUCT INSECT INVESTIGATIONS

E. A. Back, in Charge

In September George W. Ellington secured over 100,000 eggs of Sitotroga cerealella for shipment to the Barbados Department of Agriculture, for use in rearing Trichogramma parasites of Diatraea saccharalis. These eggs were taken to New York by Dr. R. T. Cotton, and placed on the S. S. Voltaire, which sailed September 15. On October 24 R. W. Tucker, Government Entomologist, notified Dr. Quaintance that about 75 per cent of the eggs had hatched successfully. The eggs were laid between small strips of heavy paper, in accordance with the method used by Simmons and Ellington during their investigation of Sitotroga cerealella at Sligo, Md.

S. E. McClendon, of the field laboratory at Thomasville, Ga., visited Louisiana early in October to investigate conditions with reference to the corn weevil on a number of large plantations in that State.

Dr. R. T. Cotton spent October 13 in New York, with Dr. Nevil Hopkins, to observe improvements in the mechanism for treating cigars with superheated steam.

Dr. R. C. Roark, of the Bureau of Chemistry and Soils, spent October 15 with Perez Simmons, at the field laboratory in Fresno, Calif., acquainting himself with methods for treating dried fruits for the control of insects.

Dr. E. A. Back returned October 26 from a visit to the field laboratories at Modesto and Fresno, Calif. On the return trip short stops were made at Houston, New Orleans, and Mobile, to inspect equipment for the treatment of flour intended for export.

The Cappell Upholstering Company, of Dayton, Ohio, through the National Association of Upholstered Furniture Manufacturers, wrote this office on October 29 requesting 1,000 reprints of the paper entitled "Tobacco Beetle as a Pest of Furniture." During the past three years the tobacco beetle has been sent to the Bureau of Entomology, as a pest of overstuffed furniture, from nearly every State in the Union.

During the months of September and October Messrs. Larson and Fisher, of the bean weevil field laboratory at Alhambra, Calif., have been overloaded with samples of beans taken from warehouse receipts in Merced and Stanislaus Counties. Warehousemen take no action until a report on the status of the samples as regards the bean weevil has been made by the laboratory. The Bureau is receiving excellent cooperation from persons growing and warehousing beans in this region.

On October 25 Perez Simmons gave a talk before the Fig Institute of California Growers, held at Medera. Other speakers were Prof. Ralph I. Smith, of the University of California, Prof. W. C. Jacobsen, of the California Department of Agriculture, and B. J. Howard, of the Bureau of Chemistry and Soils. Mr Howard laid special stress on the damage being done by the Indian meal moth, declaring that in one case coming to his attention 35 per cent of all the figs offered at the warehouse by one grower were damaged by this pest.

Included among the 38 visitors in October to the Dried-Fruit Insect Laboratory at Fresno were Dr. R. C. Roark, of the Federal Bureau of Chemistry and Soils; G. H. Hecke, Director, California State Department of Agriculture, and W. C. Jacobsen, Chief, Bureau of Plant Quarantine and Pest Control, and S. S. Rogers, of the Bureau of Fruit and Vegetable Standardization, both of the California State Department of Agriculture; and G. J. Morton, Chief of the San Francisco Station, and J. J. Shearer, Inspector, both of the Food, Drug and Insecticide Administration.

DECIDUOUS-FRUIT INSECT INVESTIGATIONS

A. L. Quaintance, in Charge

On October 4, at the fifty-second annual meeting of the Georgia State Horticultural Society, at Newnan, Ga., Oliver I. Snapp discussed the problem of the curculio, now confronting the Georgia peach growers.

T. L. Bissell, in charge of the pecan-insect laboratory at Barnesville, Ga., attended the meetings of the National Pecan Growers Association held at Macon, Ga., September 25, 26, and 27.

On October 15, T. L. Bissell visited the departments of entomology and horticulture of Alabama Polytechnic Institute, at Auburn, on business relating to investigations of the pecan weevil. This weevil has been causing injury in the eastern part of Alabama, in the district where Auburn is located.

Dr. R. C. Roark, in charge of the insecticide division of the Bureau of Chemistry and Soils, visited the field laboratory at Yakima, Wash., October 1.

The building occupied by the field laboratory at Yakima, Wash., has been enlarged to accomodate members of the Bureau of Plant Industry and the Bureau of Chemistry and Soils. An additional room has been constructed, which is used chiefly for analytical work relating to the problem of spray residues. Among other changes, improved facilities have been provided for dark-room work.

Contributions from the Japanese-Beetle Laboratory

On October 9 L. A. Stearns, of the Ohio Agricultural Experiment Station, visited the Japanese-Beetle Laboratory.

William B. Gurney, Government Entomologist of the Department of Agriculture of Sydney, New South Wales, visited the laboratory on October 10.

A shipment of 11,000 *Tiphia* cocoons were received at the Japanese Beetle Laboratory on October 15, from L. B. Parker, who is located at Shillong, India.

Robert K. Fletcher, of the College Agricultural Experiment Station, Texas, visited the laboratory on October 15 and 16, and was the guest of R. J. Sim.

On October 17 L. B. Smith and J. L. King visited H. C. Hallock, who is stationed at Long Island, carrying on investigations concerning Anomala orientalis. A field trip was made, covering a number of the large estates in the district where this oriental pest is present in large numbers. Slight injury to foliage caused by Aserica castanea was observed.

The various shade-tree commissioners of the State of New Jersey visited the laboratory on October 20, together with a number of other individuals interested in the welfare of shade trees. Thirteen automobiles were used to convey the party from place to place. After a hasty survey of the laboratory, the members met at the Moorestown Community House, where several papers were presented. Loren B. Smith addressed the members, and V. I. Safro, of the Japanese Beetle Suppression Project for the State of New Jersey, spoke on community spraying and organization. M. C. Scherer, of the Davey Tree Expert Company, Kent, Ohio, was a guest at this meeting.

J. K. Holloway returned on October 22 from a two week's vacation trip through the Southland. He spent part of the time visiting the Mississippi A. & M. College, and Professor R. W. Harned, of the Department of Entomology.

On October 24 J. L. King spoke on control of the Japanese beetle at a meeting of the Horticultural Society at North Glenside, Pa.

L. B. Smith discussed the status of the three new Asiatic beetles, Anomala orientalis Waterh., Aserica castanea Arrow, and Serica similis Lewis, at a meeting of the Eastern Plant Board at New York City, October 26.

TROPICAL, SUBTROPICAL AND ORNAMENTAL PLANT INSECT INVESTIGATIONS

A. C. Baker, in Charge

On September 10 Randall Latta, a graduate of Iowa Wesleyan College, and for a short time Assistant Entomologist at the Iowa State Experiment Station, was appointed Junior Entomologist, to assist Dr. F. R. Cole on investigations of bulb insects at Santa Cruz, Calif.

Chester B. Keck was appointed Junior Entomologist on September 18, to fill a position at Orlando, created to meet the need of asparagus fern growers in Florida in combating attacks of the red spider. Mr. Keck is a graduate of Kansas Agricultural College, Manhattan, Kans., and while attending college assisted with research in economic entomology at the Kansas State Experiment Station.

On October 15 Fredrick J. Spruyt, who has received the degree of Master of Science from the University of California, was appointed Assistant Entomologist to assist Mr. Doucette at Puyallup, Wash., in research investigations of the various bulb flies and other insect pests of ornamental and flowering plants. Mr. Spruyt comes to us from a year's graduate study of the biology of different Hymenoptera parasitica at Landbouwhoogeschool, Laboratorium voor Entomology, at Wageningen, Holland.

TRUCK-CROP INSECT INVESTIGATIONS

J. E. Graf, in Charge

F. S. Chamberlin, Quincy, Fla., visited the Washington office on Oct. 19, to confer regarding his investigations for the season recently closed.

N. F. Howard, Columbus, Ohio, attended the meeting of the Eastern Plant Board held at the American Museum of Natural History, New York City, Oct. 26, where he discussed the problem of the Mexican bean beetle.

W. A. Thomas, Chadbourn, N. C., visited Charleston, S. C., Oct. 25, to advise as to control measures on the outbreak of the webworm on spinach.

The appointments of B. J. Landis, Geneva, N. Y., and S. P. Harrell, Estancia, N. M., field assistants, have been terminated.

E. S. Parkinson, field assistant, Columbus, Ohio, has resigned.

Dr. Dayton Stoner has been given a temporary appointment as field assistant at Sanford, Fla., where he will investigate the role played by birds and other natural enemies in the control of the celery leaf-tyer.

FOREST-INSECT INVESTIGATIONS

F. C. Craighead, in Charge

At the request of the Forest Service and the Southern Pacific Railway, Dr. H. E. Burke made an examination in the latter part of September of a severe defoliation on Douglas fir caused by a species of *Ellopi*a on the Cloudercroft reserve in the Sacramento Mountains in New Mexico. The possibility of spraying or dusting 500 acres to protect this timber is under consideration.

F. P. Keen has completed a regional survey of the barkbeetle infestation in the Klamath region of southern Oregon and on the Modoc National Forest, California. About October 15 he undertook the supervision of the work of marking the infested timber on 15,000 acres within the Modoc Forest, belonging to the Forest Service and a large timber-holding corporation. The private operator has purchased government timber, and will begin a salvage logging program on both his timber and that of the Government. This operation was planned not only to salvage very severe losses that have already been incurred, but also to attempt control by logging as rapidly as possible the infested and susceptible trees on a considerable area.

H. L. Person returned October 3 to his headquarters at the California Forest Experiment Station, Berkeley, Calif., after spending the greater part of the recent season on investigations of the western pine beetle in the Modoc National Forest.

J. E. Patterson recently completed the field survey of barkbeetle infestations on the Crater National Park and Klamath Indian Reservation, and on October 3 returned to his headquarters at Palo Alto, Calif. The Indian Service has been allotted \$25,000 to combat the epidemic of the western pine beetle on the Klamath Reservation. An immense amount of yellow pine timber has been destroyed in the past three years.

W. D. Bedard and W. S. Greene, temporary Field Assistants, assigned to barkbeetle survey projects in northern California during the recent season, resigned September 30 to resume university work at the New York State College of Forestry, Syracuse, N. Y.

L. G. Baumhofer, who has been at Halsey, Nebr., on investigations of the pine tip moth during the summer, will be stationed at Coeur d'Alene, Idaho, for the coming winter.

H. J. MacAloney is spending a few months at the New York State College of Forestry, at Syracuse, preparing final report and manuscript on his cooperative investigations of the white pine weevil for the last three years.

Contributions from the Gipsy-Moth Laboratory

Dr. C. L. Marlatt visited the Gipsy-Moth office and laboratory on September 18. Other recent visitors were Capt. E. K. Brockway, Assistant Area Coordinator, and J. N. Bacheller, Assistant to Area Coordinator, Boston, Mass., September 25; Dr. Albert Hartzell, Entomologist, Boyce Thompson Institute for Plant Research, October 8; P. D. Sanders, Associate Entomologist, College Park, Md., October 8; C. W. Stockwell, Japanese Beetle Control, Camden, N. J., October 11; Wm. B. Gurney, Entomologist, Department of Agriculture, New South Wales, October 12; Dr. W. E. Britton, State Entomologist of Connecticut, October 13; Abdel Salam Fauzy, Assistant Entomologist, Egyptian Ministry of Agriculture, and W. G. Bemis, Plant Quarantine and Control Administration, Boston, Mass., October 19; H. B. Weiss, Department of Agriculture, Trenton, N. J., October 24.

A. F. Burgess and S. S. Crossman attended the meeting of the Connecticut entomologists at New Haven, October 25, where Mr. Burgess discussed the problem of the gipsy moth.

On October 26 A. F. Burgess attended the meeting of the eastern Plant Board at New York and gave a talk on the gipsy-moth situation.

A. F. Burgess spent several days in the week of October 8 and October 18 in Washington conferring with Bureau officials.

C. F. W. Muesebeck, of the Gipsy-Moth Laboratory, who has been in charge of the European work of this project for the past two and a half years, returned to Melrose Highlands, Mass., October 15. He left his headquarters in Budapest, Hungary, August 15, and before returning to the United States visited museums in Berlin, Stettin, Kiel, and Bonn, Germany; Brussels, Belgium; London, England, and Dublin, Ireland; these visits were made especially to examine genotypes of the Braconidae. P. B. Dowden and R. C. Brown remain in Europe, to continue the investigations and shipment of parasite material.

S. F. Potts, of the Gipsy-Moth Laboratory, spent September 24 at the New Orleans, La., laboratory of the Division of Tropical and Subtropical Plant Insects, and spent the two following days at the Delta Laboratory, at Tallulah, La.

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